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INTRODUCTORY STATEMENT  
TO THE  
RAILWAY TRANSPORT COMMITTEE  
OF THE  
CANADIAN TRANSPORT COMMISSION

## RISKS AND DANGERS TO THE PUBLIC IN THE OPERATION OF CABOOSELESS TRAINS IN HIGH-DENSITY URBAN AREAS

HULL, QUEBEC  
OCTOBER 6, 1986

M-TRAC is a non-profit Metrowide umbrella organization of ratepayers, residents and other groups who following the Mississauga train derailment joined forces to investigate and advocate rail safety in densely populated urban areas. Members are committed to initiate legislative and other changes necessary to ensure public safety particularly in the transport of dangerous commodities by rail.



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# M-TRAC

*for rail safety*

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## TO THE RAILWAY TRANSPORT COMMITTEE OF THE CANADIAN TRANSPORT COMMISSION

### RISKS AND DANGERS TO THE PUBLIC IN THE OPERATION OF CABOOSELESS TRAINS IN HIGH-DENSITY URBAN AREAS

IN THE MATTER OF an application by Canadian Pacific Limited for approval of amendments to Rules 19, 19A, 90A and 102 of the Canadian Transport Commission's Regulations No. 0-8, Uniform Code of Operating Rules, C.R.C. 1978, c. 1175;

IN THE MATTER OF an application by the Canadian National Railway Company for relief from Rule 90A of the Canadian Transport Commission's Regulations No. 0-8, Uniform Code of Operating Rules, C.R.C. 1978, c. 1175; and

IN THE MATTER OF tests conducted to evaluate the reliability of the end-of-train unit and associated devices and to evaluate the risks associated with train operations without rear of train personnel required by the Railway Transport Committee pursuant to its Decision of September 16, 1985, which dealt with the matter of testing cabooseless trains.

File Nos. 4357R90-A.1  
4357R90-A.2

Hull, Quebec, October 6, 1986





## **CABOOSELESS TRAINS - DANGERS TO THE PUBLIC**

Mr. Chairman,

We are asked to respond to these applications by the railways to operate cabooseless trains in all Canada and to treat them as new applications although these proceedings are associated with certain tests which flowed from previous public hearings culminating in a Decision by the Railway Transport Committee.

Under that Decision dated September 16, 1985, full tests were to be conducted of an electro-mechanical device known as the end-of-train unit, which the railways propose to use to replace the caboose and rear-end trainman.

The railways claim this end-of-train unit, which weighs about 30 pounds and costs about \$6,000, is absolutely reliable and that the safety of the train, its crew and the public at large will not be jeopardized. Indeed, the claim is made that safety will be improved and this should reassure the public which on occasion has been severely affected by railway accidents, particularly in high-density areas.

Intervenors are asked by the Railway Transport Committee, which, under the law, is obliged to safeguard the public in the operation of railways in Canada, to make a prudent evaluation of these tests, as shown by results published by the RTC staff, and thereby assist the RTC in this very complex task of dealing with the railways' applications.

In our view, this case, with its possible grave consequences and complexities, cannot rest solely on the results of the tests but must be related, to some degree, on the over-all merits of the railways' application, including economic necessity, and the public concern associated with cabooseless operations.



Rear-end trainmen have protected Canadian freight trains for many decades. Operating rules have been instituted to ensure that freight trains, carrying common supplies or dangerous goods, do not move without a caboose and rear-end trainman. In our time trains are growing longer and heavier. They carry increasing loads of lethal and explosive chemicals and in some areas the risks to the public have become alarming.

We do not wish to place undue emphasis on the extremities of chemical accidents, such as Bhopal in India and Chernobyl in the Soviet Union, other than to point out that where safety is relegated below economic goals and values, the results may cause a great deal of anguish.


It is our view that safety should not be diminished or sacrificed where the public is threatened and it is our submission that trains carrying dangerous goods through high-density areas pose a threat.

We are, therefore, here simply as another element in the protection of the public and to assist the Railway Transport Committee in any way we can. Essentially, as we see it, the issue before us is a matter of prudent judgement in dealing with the wishes of the railways without escalating public risks. The complexities would suggest that the prudent course is to proceed with extreme caution.

We shall have more to say about the end-of-train unit tests as this public hearing proceeds, but at the outset we must advise you we are disturbed by the results which show that this electro-mechanical unit is not completely reliable. It can malfunction and it can miscalculate and it can fail. The tests also show that the rear-end trainman is of value in picking up train faults which can lead to accidents. The number of incidents reported in these tests is alarming. We had hoped as a result of the last hearing that numerous incidents reported by rail employees would have been investigated by this time and matters rectified. This does not seem to be the case and we would hope for some satisfying explanation during these proceedings.

Another problem is that the results of the tests are not complete. It is only fair to the railways to say we should not jump to conclusions or reach judgements until all the results are distributed. But there is one very serious concern and we cannot





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understand how these proceedings can reach any conclusion without the additional tests and results ordered by the Railway Transport Committee in the September 16, 1985, Decision.

On page 39 of that Decision the RTC stated:

"Although evidence was led by the railways that the end-of-train unit could be modified to provide for the emergency application of the brake at the rear of the train, this feature also needs to be tested to determine its reliability under realistic and controlled conditions."

At the pre-hearing conference we heard that a working model of this rear-end brake application exists but that it had not yet been tested under RTC supervision. Since the reliability of this model must be tested under realistic and controlled conditions, we presume the RTC will ensure that the degree of testing will at least equal that provided for the end-of-train unit. That would mean testing under various weather and climatic conditions and various terrains and traffic densities. It certainly could not be a matter of whipping through a quick and perfunctory exercise, in view of the grave consequences of a later malfunction during every-day operations. That, therefore, will take time and we cannot see how these proceedings at this stage can reach any conclusions or even offer any advice to the Railway Transport Committee until such tests have been completed.

Aside from the results of these various tests which may assist in the final decision-making, it is our view that the railways must make a case, a complete case, for removal of longstanding operating rules which have protected the public. What is the real need for removal of the rear-end trainman? Is it a case where existing technology has become so improved that the rear-end trainman is redundant? Or is it a case where deregulation, or the prospect of deregulation, combined with ferocious cross-border competition forces the railways to seek such vast operational cost reductions that the rear-end trainman must be sacrificed and the public must accept the added risks in order that the vital rail service can survive.

There was a time, Mr. Chairman, when deregulation or the prospect of deregulation was very popular in the rail industry. But we all realized that deregulation would bring problems, including heavier competitive pressures on the railways. So you can see



why the railways cast their eye on the caboose and the rear-end trainman. But now the railways having second thoughts. They may end up fighting deregulation to protect their Canadian markets against American invaders. Meanwhile, the railways have reduced operational manpower, including maintenance and shop staffs while heading toward the goal of a 10,000-ton train with its attendant risks and benefits.

The Mississauga train of 1979 was 9,000 tons; the Hinton train was about 6,000 tons and a 10,000-ton train may stretch up to two miles. It is possible that it may take a great deal more gadgetry than currently available for the front-end crew to keep a close watch on what goes on at the back of such a lengthy train. How, for example, is the end-of-train unit going to protect the train against the possibility of a rear-end collision?

We are told by the railways that technology will take care of all that. We are not convinced. Certainly, many municipalities are worried, particularly those in the Metro Toronto area, especially in the haulage of dangerous goods through densely-populated areas.

The union may argue the case against cabooseless trains on various grounds but for the public there can be no conclusion other than that the operation of cabooseless trains carrying dangerous goods through high-density areas poses a threat, a very serious threat, compounding risks which already exist and must be resolved.

There has been some suggestion that instead of giving safety absolute priority, we ought to weigh safety against economic costs. This, in effect, means placing a dollar sign on safety values and it is difficult to reach such a dollar evaluation. It is certainly cheaper to put an end-of-train device on the back of a train but would you get the same safety performance? Well, let's look at Appendix "A" of the RTC September 1985 decision and see how the railways respond.

The response to the first question is significant. If you put a gadget there instead of a human, how can you find a reliable substitute for sight, sound and smell? Well, reply the railways, the rear-end crew can't do much of that anyway because of curves





and weather and because the crew has other duties. Not a very convincing response. The same applies to Question No. 7 on detection of fires on trains. Certainly the electro-mechanical gadget can't do that. So what is the railways' response? Well, the rear-end crew has only limited sight. That may be true but the rear-end trainman is not deaf, dumb and blind. Mr. Justice Grange has estimated the crew can see at least 40 cars ahead or behind. What can the end-of-train unit see? Nothing.

Instead of turning the caboose into a possible computer centre with onboard hot-box detection and other communications, as well as radar screening to cover track and cars, the railways simply want to eliminate the caboose and let the public swallow the risks. The response in Appendix "A" tell us a great deal about railway attitudes including the possibility of a head-on collision which might wipe out the front-end crew, leaving no one to raise the alarm. We raised that possibility in our last submission. And the railways simply say that possibility is remote.

But it wasn't remote in Hinton, Alberta. Nor was it remote for the 23 dead in that unfortunate disaster. The Hinton accident condemns those who dismiss the consequences of unpredictable railway accidents.

In pursuit of a prudent judgement, the Railway Transport Committee will be confronted with evidence that the United States does allow some cabooseseless operations. And if the United States does allow such operations, why shouldn't Canada? We submit that the full pattern of cabooseseless operations and results in the U.S. has not been disclosed to the public. It is not good enough for U.S. rail representatives to argue that there is no proof that accidents on cabooseseless trains in the U.S. are linked with the fact that the train had no caboose or rear-end trainman. We are not impressed with the U.S. accident rate or U.S. surveillance and we hope that Canada does not attempt to emulate the U.S. practice.

One final point which may weigh on the side of the railways. We are impressed with the decision of Commissioner Yves Dubé and his associates in the case of the Quebec North Shore and Labrador Railway. This decision, dated August 29, 1986, authorizes cabooseseless operations in the haulage of iron ore in an isolated region. We believe the Dubé decision should be studied in these proceedings. It may point a way in which cabooseseless



operations can be sanctioned under certain conditions in isolated areas where dangerous goods are not involved and the public is not threatened.

Even in such circumstances, however, the risks to the rail crews may be increased and that is a matter for the RTC to consider. You will note that the ore trains in northern Quebec travel at moderated speed and that a helicopter service system is available.

You will also note that Commissioner Dubé insists that the end-of-train unit in the ore trains must be accompanied by the remote-control emergency brake application and that the entire system to be installed must first be approved by the Canadian Transport Commission.

We know that Commissioner Dubé is a compassionate public servant who has weighed all the possibilities of risk and has concluded there are areas where the additional risk, if any, is small. Of course, he and his associate commissioners could not reach any firm decision on the reliability of the end-of-train unit, simply because not all the test results and other evidence were available at the time of the decision.

It may be helpful in these proceedings if Commissioner Dubé could appear and provide the hearing with the benefit of his experience.

To sum up, we suggest:

1. Test results compiled so far do not provide complete confidence in the reliability of the end-of-train unit.
2. Tests and results must be obtained on the remote-control emergency brake application before these proceedings can be completed.
3. Test results issued by the RTC staff give substance to the argument that the rear-end trainman plays a valuable role in the safe operation of the train and his presence must continue.





4. The results also point to some very shocking deficiencies in the existing rail system, including equipment failures, which must be addressed.
5. The U.S. experience is not a reliable guide for cabooseless operation in Canada.
6. Municipalities have the right to protect themselves and the Railway Transport Committee is obliged under the law to safeguard the public.
7. Deregulation may no longer be an argument in support of cabooseless operation.
8. The railways must provide the RTC with evidence in support of the full merits of their case, including economic need.
9. The Dubé decision may provide an avenue of approach on the use of cabooseless operations in remote areas.

Harold Morrison  
Chairman





